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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/630,089 | 07/30/2003 | Nobuyuki Ito | 1300-000001 | 8493 |
| 27572 | 7590 | 03/06/2006 | EXAMINER | |
| HARNES, DICKEY & PIERCE, P.L.C. | | | ROY, SIKHA | |
| P.O. BOX 828 | | | ART UNIT | |
| BLOOMFIELD HILLS, MI 48303 | | | PAPER NUMBER | |
| | | | 2879 | |

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,089

Applicant(s)

ITO ET AL.

Examiner

Sikha Roy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) 9-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment, filed on December 14, 2005 has been entered and is acknowledged by the Examiner.

Cancellation of claim 2 has been entered.

The New Drawings (2/17 –8/17) and new Abstract submitted December 14, 2005 have been entered and are approved by the Examiner.

Claim Objections

Claim 1 is objected to because of the following informalities:

The limitation reciting 'that the electroluminescent layer is curved in section' is not very clear. Clarification is needed regarding what section is meant. For continuing examination, 'a section' of the electroluminescent layer is considered to be curved in a direction opposite to the convexly curved protrusion.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4,6 -8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication 2002/0060518 to Duineveld et al.

Regarding claim 1 Duineveld discloses (Fig.2C page 8, [0117] –[0122]) an electroluminescent display comprising a substrate 102, an electrode 103 provided on the substrate, protrusions 108 provided on the substrate so as to cover the ends of the electrode 103 and are convexly curved in section relatively to the surface of the substrate, an electroluminescent layer (104 and 105) provided in each opening which is located on the electrode and defined by adjacent protrusions 108 wherein the electroluminescent layer is in contact with the protrusion around the boundary between the EL layer and the protrusion and is curved in section in a direction opposite to the convexly curved protrusion.

Regarding claim 3 Duineveld discloses the electroluminescent layer (104 and 105) around the boundary between the EL layer and the protrusion 108 is smooth and continuous in contact with the protrusion.

Regarding claim 4 it is clearly evident from Fig 2C that the sectional form of the protrusion 108 comprises a part of an arc.

Regarding claim 6 Duineveld discloses (Fig. 1a [0101]) the thickness (height) of the protrusion (first relief pattern 8 and second relief pattern 9) is 7 μm .

Regarding claim 7 Duineveld discloses (page 1 [0014], [0043], [0045]) the method of producing the EL display comprises the step of forming an organic layer on

the surface of the substrate with protrusions provided thereon by using wet deposition method such as spin-coating or ink-jet printing.

Regarding claim 8 Duineveld discloses (Fig.4 [0125]) a mobile telephone comprising the electroluminescent display.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2003/0107314 to Urabe et al.

Regarding claim 1 Urabe discloses (Fig. 1 sections [0032]-[0035]) an electroluminescent display comprising a substrate 11, an electrode 12 provided on the substrate, protrusions (insulating layer) 13 provided on the substrate so as to cover the ends of the electrode and are convexly curved in section relatively to the surface of the substrate, an EL layer 14 provided in each opening located on the electrode and defined by the protrusions wherein the EL layer 14 in its part around the boundary between the EL layer 14 and the protrusion 13 is in contact with the protrusion and is curved in a direction opposite to the convexly curved protrusion.

Claims 1, 3- 5 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2003/0098645 to Lee et al.

Regarding claim 1 Lee discloses (Fig. 2, sections [0046] – [0050]) an organic EL display comprising a substrate 200, an anode electrode 270 provided on the substrate, ~~protrusions (insulating layer) 280 which are convexly curved in section relatively to the~~ surface of the substrate are provided on the substrate so as to cover the ends of the

electrode 270, an electroluminescent layer 290 provided on the electrode 270 and in the opening defined by adjacent protrusions. Lee further discloses (Fig.2 column 3 sections [0049], [0050]) the organic EL layer 290 in its part around the boundary between the EL layer and the protrusion is in contact with the protrusion so that the EL layer is curved in a direction opposite to the convexly curved protrusion.

Referring to claim 3 it is evident from Fig. 2 that the EL layer in its part around the boundary between the EL layer and the protrusion is in smooth and continuous contact with the protrusion.

Regarding claim 4 Lee discloses (Fig.2) the sectional form of the protrusion comprises a part of an arc.

Referring to claim 5 Lee discloses in Fig.2 that the sectional form of the protrusion comprises a part of an arc and a flat part as an upper part which is extended continuously from the arc part.

Response to Arguments

Applicant's arguments filed December 14, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that Lee discloses all convexly curved portions facing the same direction the Examiner respectfully disagrees. Lee discloses in Fig. 2 the protrusions 280 having section which is convexly curved (center of curvature being inside the protrusion) relative to the surface of the substrate and the EL

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layer 290 having section which is concavely curved, (center of curvature located outside) and hence is curved in a direction opposite to the convexly curved protrusion.

Regarding applicant's allegation of the two ends of organic EL layer 290 of Lee does not have the possibility to solve the problems of prior art the Examiner notes that these features are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sikha Roy

Sikha Roy
Patent Examiner
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